Heat treatment is a primary method of reducing biological hazards in raw materials (milk and ingredients that are combined with milk) to reduce the potential hazard to an acceptable level.

**Pasteurization**

Products that have a label statement of “pasteurized”, must have been processed to meet pasteurization standards as defined in the Pasteurized Milk Ordinance (PMO). Milk must be heated in properly designed and operating equipment at or above the minimum temperature and held at that temperature for the specified time.

Pasteurization records are maintained (enter company name) for the time specified documenting proper pasteurization. Pasteurization records are reviewed as specified in the food safety plan.

Reference: Pasteurized Milk Ordinance

**Heat Treated / Thermalized**

Products may have a label that does not specify pasteurized milk, or is made from milk that has not been pasteurized. These products may have a higher risk of biological hazard. This risk can be mitigated or reduced to an acceptable level with a sufficient heat treatment as a preventable control step. Heating milk to ≥148°F (64.4°C) for >16 seconds is sufficient to reduce the biological risk to an acceptable level.

Heat treatment records are maintained by (enter company name) for the time specified in the PMO for pasteurization records.

Reference: Johnson, Nelson, Johnson; Microbiological Safety of Cheese made from Heat Treated Milk

**No Thermal Treatment / Minimal Heat Treatment (<148°F for 16 sec.)**

Products made from milk that has not received sufficient to heat treatment to destroy microorganisms of heath concern present a potentially high biological risk. The following actions are taken by (insert company name) reduce the risk to an acceptable level:

- Raw material controls ??
- Testing ??
• Rate of acid development ??
• Product pH
• Aging of for > 60 days